

# **EXHIBIT 24**

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UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN FRANCISCO DIVISION

GOOGLE LLC,

Plaintiff

v.

Case No. 3:20-cv-06754-WHA

SONOS, INC.,

Defendant.

**GOOGLE LLC’S EIGHTH SUPPLEMENTAL OBJECTIONS AND RESPONSES TO  
PLAINTIFF SONOS, INC.’S FIRST SET OF FACT DISCOVERY INTERROGATORIES  
(NO. 18)**

Pursuant to Rule 33 of the Federal Rules of Civil Procedure, Defendant Google LLC (“Google”) hereby objects and responds to Plaintiff Sonos, Inc.’s (“Sonos”) First Set of Fact Discovery Interrogatories to Defendant (“Interrogatories”). Google responds to these

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1 Subject to and without waiving the foregoing General and Specific objections, Google  
2 responds, as follows:<sup>1</sup>

3 **'885 Patent & '966 Patent**

4 Google incorporates by reference the opinions disclosed in Dr. Schonfeld’s Opening Expert  
5 Report, Dr. Schonfeld’s Rebuttal Report, and Dr. Schonfeld’s deposition testimony regarding non-  
6 infringing alternatives.

7 ***Non-Infringing Alternative #1 – Google’s products***

8 Google’s products do not infringe the asserted claims of the '885 and '966 patents.  
9 Accordingly, the accused Google products are themselves non-infringing alternatives to the asserted  
10 claims.

11 ***Non-Infringing Alternative #2 – no standalone mode***

12 A non-infringing alternative is an implementation in which when the accused “standalone”  
13 speaker is added to a target group, and it matches the music (or silence) of the target group. Pursuant  
14 to FRCP 33(d), Google also refers Sonos to the source code files made available on the Quinn  
15 Emanuel LA Office source code review computer, and for which excerpts were provided to counsel  
16 for Sonos on September 1, 2022. See, e.g., SC-GOOG-SONOSNDCA-001598 - SC-GOOG-  
17 SONOSNDCA-001682.

18 Claim 1 of the '885 patent is exemplary. Claim 1 includes limitations that require the zone  
19 player to be added to two different zone scenes: “(i) receiving, from a network device over a data  
20 network, a first indication that the first zone player has been added to a first zone scene comprising  
21 a first predefined grouping of zone players including at least the first zone player and a second zone  
22 player that are to be configured for synchronous playback of media when the first zone scene is  
23 invoked” and “(ii) receiving, from the network device over the data network, a second indication  
24 that the first zone player has been added to a second zone scene comprising a second predefined  
25 grouping of zone players including at least the first zone player and a third zone player that are to

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27 

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<sup>1</sup> While Google provides estimates for implementing the non-infringing alternatives, these  
28 approximate time frames may be shorter based on the number of engineers involved.

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1 be configured for synchronous playback of media when the second zone scene is invoked, wherein  
2 the second zone player is different than the third zone player.” The claim then requires that “after  
3 receiving the first and second indications, continuing to operate in the standalone mode until a given  
4 one of the first and second zone scenes has been selected for invocation.” In other words, the claim  
5 requires the zone player that was playing back music individually to be added to two different zone  
6 scenes, but to continue to operate in a “standalone mode” until one of the two zone scenes is  
7 “invoked.”

8 With this non-infringing alternative, infringement is avoided by having the “standalone”  
9 speaker that is added to two zone scenes not continue to operate in “standalone” mode after it has  
10 been added to those zone scenes. Instead, the accused “standalone” speaker after being added to a  
11 zone scene may match the music (or silence) of the target zone scene. Indeed, currently, when a  
12 single speaker is playing music and a group is playing music and the single speaker is added to the  
13 group, the speaker will begin playing the music that the group was playing. Having this same  
14 behavior for the situation where a speaker is playing music and joined to a group that is not playing  
15 music would harmonize the behavior in these two situations.

16 In this alternative, the accused zone player would never “continue to operate in standalone  
17 mode” after receiving the indication that it “has been added to a first zone scene.” Rather, the  
18 accused zone player would immediately adopt the behavior of the accused “zone scene” to which it  
19 was added. Therefore, the accused zone player would no longer be “configured to play back media  
20 individually” or, equivalently, remain in the accused “standalone mode.”

21 All asserted claims of the ’885 and ’966 patents require the “standalone mode” functionality  
22 discussed above, and therefore this non-infringing alternative applies to all asserted claims. For  
23 example, in claim 1 of the ’966 patent, that claim requires that a “first zone player is operating in a  
24 standalone mode,” and that after a “first request,” a “second request,” and a “third request,” that  
25 “based on the third request, causing the first zone player to transition from operating in the  
26 standalone mode to operating in accordance with the first predefined grouping of zone players.”  
27 Accordingly, the ’966 patent claims, which each require these same steps, are subject to the  
28 alternative. This alternative would have been straightforward and taken minimal time, which

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1 reflects its ready availability. Google estimates that it would need one Level-6 software engineer  
2 working for one day to implement this alternative.

3 [REDACTED]  
4 [REDACTED]  
5 [REDACTED] Google reserves the right to supplement  
6 this interrogatory response, including when and if it publicly releases a new version of source code  
7 relevant to this non-infringing alternative.

8 ***Non-Infringing Alternative #3 - no overlapping groups***

9 A non-infringing alternative is an implementation in which a speaker that is already a  
10 member of one group will be forced out of this (first) group when a user attempts to add the speaker  
11 to a new (second) group. In other words, with this non-infringing alternative, no speaker can be a  
12 member of more than one group at the same time.

13 This is a requirement of the asserted claims. For example, claim 1 of the '885 patent requires  
14 that the zone player "receiv[es], from a network device over a data network, a first indication that  
15 the first zone player has been added to a first zone scene" and that the zone player "receiv[es], from  
16 the network device over the data network, a second indication that the first zone player has been  
17 added to a second zone scene." "[A]fter receiving the first and second indications, [the zone player]  
18 continu[es] to operate in the standalone mode until a given one of the first and second zone scenes  
19 has been selected for invocation." Similarly, claim 1 of the '966 patent requires a "first request to  
20 create a first zone scene comprising a first predefined grouping of zone players including at least  
21 the first zone player" and a "second request to create a second zone scene comprising a second  
22 predefined grouping of zone players including at least the first zone player." Claim 1 of the '966  
23 patent also requires "while displaying the representation of the first zone scene and the  
24 representation of the second zone scene, receiving a third request to invoke the first zone scene."  
25 These representative claims (for this limited purpose) show that the asserted claims require the  
26 overlapping groups described above.

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1 [REDACTED]  
2 [REDACTED]  
3 [REDACTED]  
4 [REDACTED]  
5 [REDACTED]  
6 [REDACTED]  
7 [REDACTED]  
8 [REDACTED]  
9 [REDACTED]  
10 [REDACTED]  
11 [REDACTED]  
12 [REDACTED]  
13 [REDACTED]  
14 [REDACTED]  
15 [REDACTED]  
16 [REDACTED]  
17 [REDACTED]  
18 [REDACTED]

19 [REDACTED] The Court has also recognized this requirement. Dkt. 309 at  
20 12 (the Court finding that “claim 1 recites a specific kind of device — a ‘zone player’ — that can  
21 be readily placed in pre-saved groups with other zone players to allow synchronous playback on  
22 demand,” and “[t]he claimed ability to customize and save overlapping speaker groups and easily  
23 control group playback represents a clear technological improvement over the ‘conventional multi-  
24 zone audio system,’ which, as the specification explained, presents significant technological and  
25 physical obstacles to forming speaker groups”).

26 This claim language is consistent with the Asserted Patents’ disclosure that a “zone player”  
27 can simultaneously be a member of multiple different groups that are predefined and pre-saved as  
28 part of multiple different “zones scenes” in existence at the same time, and provides yet another

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1     ***Non-Infringing Alternative #3 – Cloud Service, Not Playback Device, Communicates With***  
 2     ***Cloud Servers To Identify the Next One Or More Media Items In The Remote Playback Queue***

3           All asserted claims of the '033 patent recite a computing device that transmits “an instruction  
 4 for the at least one given playback device to take over responsibility for playback of the remote  
 5 playback queue from the computing device, wherein the instruction configures the at least one given  
 6 playback device to (i) communicate with the cloud-based computing system in order to obtain data  
 7 identifying a next one or more media items that are in the remote playback queue, (ii) use the  
 8 obtained data to retrieve at least one media item in the remote playback queue from the cloud-based  
 9 media service; and (iii) play back the retrieved at least one media item.”

10           Sonos's infringement contentions are vague and do not adequately disclose its theory of how  
 11 any instruction from the sender device configures a playback device to perform items (i)-(iii) of this  
 12 limitation. Sonos appears to allege that this limitation is met because a receiver device may receive  
 13 a setPlaylist message from an MDx server and then (i) send a GetWatchNext request that, according  
 14 to Sonos, returns a GetWatchNext response identifying a next one or more media items that are in  
 15 the remote playback queue, and (ii) send a GetPlayer request that, according to Sonos, uses the  
 16 information in the GetWatchNext response to obtain data to retrieve a media item in the cloud queue.  
 17 '033 Infringement Contentions at Limitation 1.7. Google does not admit that this functionality  
 18 satisfies the claimed limitation or that it fully and accurately describes the functionality of the  
 19 accused products.

20           Nevertheless, a non-infringing alternative is for the receiver device to not send a  
 21 GetWatchNext message or getPlayer requests. Instead, in Alternative 32 the receiver device would  
 22 send a request to a Onesie agent. The Onesie agent would send the GetWatchNext request and  
 23 GetPlayer request, and then stream the media data from the Onesie agent to the receiver device. In  
 24 other words, in Alternative #3 the receiver device does not “obtain data identifying a next one or  
 25 more media items that are in the remote playback queue,” and does not “use the obtained data to  
 26 retrieve at least one media item in the remote playback queue from the cloud-based media service.”

27           [REDACTED]  
 28           [REDACTED] which can allow the Onesie agent to make the GetWatchNext and

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1 GetPlayer calls. See, e.g., GOOG-SONOSNDCA-00071671; GOOG-SONOSNDCA-00070863;  
2 GOOG-SONOSNDCA-00073429; GOOG-SONOSNDCA-00073577. Onesie and [REDACTED]  
3 [REDACTED] are discussed in further detail in the opening and rebuttal reports of Dr. Bhattacharjee, which  
4 are incorporated herein by reference.

***Non-Infringing Alternative #4 – Continue Playback***

6 All of the asserted claims require “transitioning from i) the first mode in which the  
7 computing device is configured for playback of the remote playback queue to ii) a second mode in  
8 which the computing device is configured to control the at least one given playback device's  
9 playback of the remote playback queue and the computing device is no longer configured for  
10 playback of the remote playback queue.”

11 To the extent Google’s accused products are found not to already do so, a non-infringing  
12 alternative that Google would have had at the time of the alleged first infringement is continuing  
13 playback at the control device after playback has been transferred to the playback device. The  
14 playback can be continued with only the video alone (and the audio muted). After transfer occurs,  
15 a “set and forget” operation could turn the receiver into a playback device without direct control  
16 from the YT app on the phone or tablet. Video and audio would be playing back on the screen, and  
17 video would be playing on the phone/tablet. The user could retain control of the receiver through  
18 other means such as Google Assistant or Google Home. Because the playback would not be stopped  
19 on the control device as part of the transfer step, this alternative does not infringe the Asserted  
20 Claims.

21 End users would have found this alternative to be an acceptable alternative. This would thus  
22 provide additional functionality that the user may choose to take advantage of or may choose to  
23 ignore if they prefer. In fact, users may prefer this method. For instance, if the playback of a video  
24 continues on the control device after transferring playback is complete, the user would have the  
25 benefit of viewing the video both on their phone and on the television.

26 This alternative would have been straightforward and taken minimal time, which reflects its  
27 ready availability. Google estimates that the modification to all the relevant accused products after  
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1 DATED: November 21, 2022

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